This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended): A computer system comprising:

a data store comprising a table of objects and pre-computed values, the pre-computed values comprising information to discern objects based on type pursuant to a hierarchical search, each object having an associated type in a hierarchy of types, each type having an identifier and being extensible using an inheritance extension; and

a hardware / software interface system for manipulating the plurality of objects and pre-computed values.

Claim 2 (Original): The computer system of claim 1, wherein each type is a user-defined type (UDT).

Claim 3 (Original): The computer system of claim 1, wherein a type can be a subtype of another type.

Claim 4 (Original): The computer system of claim 1, wherein the data store further comprises a type path for each object.

Claim 5 (Original): The computer system of claim 4, wherein the data store comprises a computed column for storing each type path.

Claim 6 (Original): The computer system of claim 4, wherein each type path comprises a variable-length encoded value.

Claim 7 (Original): The computer system of claim 6, wherein each variable-length encoded value corresponds to a hierarchy level of the type of the associated object.

Claim 8 (Currently Amended): A hardware / software interface system capable of manipulating a plurality of objects and pre-computed values, the pre-computed values comprising information to discern objects based on type pursuant to a hierarchical search, the

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objects and pre-computed values comprised within a table, each object having an associated type in a hierarchy of types, each type having an identifier and being extensible using an inheritance extension.

Claim 9 (Original): The hardware / software interface system of claim 8, wherein each type is a user-defined type (UDT).

Claim 10 (Original): The hardware / software interface system of claim 8, wherein a type can be a subtype of another type.

Claim 11 (Original): The hardware / software interface system of claim 8, wherein each object has an associated type path.

Claim 12 (Original): The hardware / software interface system of claim 11, wherein each type path belongs to a computed column in data store.

Claim 13 (Original): The hardware / software interface system of claim 11, wherein each type path comprises a variable-length encoded value.

Claim 14 (Original): The hardware / software interface system of claim 13, wherein each variable-length encoded value corresponds to a hierarchy level of the type of the associated object.

Claims 15-24 (Canceled)